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**Vulcan 3-550PD Burnout Furnace (Dentsply Neytech)
(Project 08-09) (4/09)**

The Vulcan 3-550PD is a multi-stage burnout furnace with 10 programmable, individual programs designed for use in the dental laboratory. Nine programs can use from one to three stages with each stage programmable for a predetermined heat ramp rate, temperature, and hold time. The heat ramp rate can be controlled from 0-40° C per minute, to a maximum furnace temperature of 1,100° C. Temperature can also be set to Fahrenheit. Hold time can be set to an upper limit of 99 hrs and 59 minutes. It also has one program with a single temperature hold cycle which can be used for procedures such as degassing refractory casts. The furnace is equipped with touchpad programming combined with a liquid-crystal display (LCD) for easy viewing and has a series of light-emitting diodes (LEDs) that reveal a visual status of the program being used. The Vulcan furnace is also equipped with a delay-start feature that can be set seven days in advance. This allows the user to burnout without being present and to have the mold ready and waiting upon request (e.g., overnight, weekends). A unique feature of this oven is the power operated door that is activated by a foot pedal type switch. Activating the switch once will cause the door to open or close. Activating the switch while the door is moving will cause the door to stop. Once stopped, activating the switch again will cause it to reverse directions. The muffle chamber measures 7"H x 9"W x 9"D and can hold up to sixteen 100 gram rings, or nine 200 gram rings. The furnace weighs 56 lbs; with external dimensions of 16"H x 15.8"W x 17"D and an increase in height to 25" when the door is fully open. It has a two-year warranty and is available in 100V 50/60Hz, 120V 50/60Hz, and 200-240V 50/60Hz.



Manufacturer:

Dentsply Neytech
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Suggested Retail Price:

\$1,908.50 Vulcan 3-550PD Multi-stage Burnout Furnace, Item # 949-3826

Government Price:

\$1,592.02 Vulcan 3-550PD Multi-stage Burnout Furnace, Item # 949-3826

ADVANTAGES:

- + Delay-start feature up to seven days
- + Reduced heat blast on operator during loading/unloading
- + Hands-free control of vertical lift door with foot-control switch
- + Quick-capture feature allows vertical lift door to stop at any point
- + Operation and programming is easy and intuitive
- + Two programs can be linked together to form one-six stage program
- + Large heating chamber size should meet most lab requirements
- + Foot pedal can be mounted to fixed surface

DISADVANTAGES:

- May be slightly large for smaller laboratories

SUMMARY AND CONCLUSIONS:

The Vulcan 3-550PD is a multi-stage burnout furnace with 10 programmable, individual programs. The Vulcan 3-550PD is designed for flexibility and can be used for most types of investments and burnout cycles. The unit's touchpad control panel was found by evaluators to be easy to use and understand. Additionally, the furnace is equipped with a delay start feature that can be programmed up to seven days in advance. Evaluators found the foot-control switch for the power operated door to be a definite advantage. The vertical lift door feature also reduced the heat blast felt by the operator when compared to conventional pull-down type furnaces. The 7"H x 9"W x 9"D heating chamber size was found to be acceptable for medium to large dental laboratories. However, the large size of the heating chamber may be unnecessary for smaller production laboratories where a smaller furnace would seem to be more appropriate. The **Vulcan 3-550PD** is rated **Outstanding** for use in US Air Force dental facilities.